

Abstract:

**Title:** Shoulder joint stress and the formation of muscle disbalances suffered by tennis players.

**Goals:** Finding the correct cooperation of selected muscles during the initial stage of tennis service and discuss their impact and medical effects on the shoulder joint.

**Method:** Kinematic analysis using the Qualisys Motion System, Electromyography

**Results:** The shoulder joint stabilizes during the initial stage of service. The m. supraspinatus has a big significance in this motion.

**Key words:** tennis, service, muscles cooperation during tennis service